

# Work Order ID 110042

December-17-13 9:06:49 AM

**\*110042\***

Page 1

Item ID: D3017-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Seat Back  
 Start Date: 12/17/13 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 12/17/13 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: *PL* Date: 13-12-17 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3017	Rev B

100 Weld per dwg A/R 4130 rod Batch: M127925 0.00  
**\*100\*** Large Fab 1 2 14-1-16  
 Memo 0.00  
 Large Fab 1-Cut D3017-1, D3017-3 and D3017-5 tubes as per Dwg D3017  
 2-Bend D3017-1 and D3017-3 tube as per dwg D3017 (DT8598)  
 3-Drill holes in D3017-5 Using DT8622  
 4-Deburr  
 5-Assemble and weld as per Dwg D3017 using Welding Jig DT8598  
 6-Drill holes in back frame using DT8621

110 QC9- Inspect visual per QSI004- Fusion Welds 0.00  
**\*110\*** QC ① 14-01-16 DAS  
 Quality Control Memo 0.00 9  
9-89



December-17-13 9:06:49 AM

Page 2

ix \_\_\_\_\_ 14/01/86 DAS 36 9-89

# Work Order ID 110042

December-17-13 9:06:50 AM

**\*110042\***

Page 3

Item ID: D3017-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Seat Back  
Start Date: 12/17/13 Start Qty: 1.00 **\*1\*** Cust Item ID:  
Required Date: 12/17/13 Req'd Qty: 1.00 **\*1\*** Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Identify as per dwg & Stock Location <b>GA</b>	0.00							
<b>*150*</b>									
Packaging	Memo	0.00				<b>1X</b>			<b>14/01/16</b>
Packaging									
160	QC21- Final Inspection - Work Order Release	0.00							
<b>*160*</b>									
QC	Memo	0.00							<b>14-01-21</b>
Quality Control									

DAS  
36  
9-89

**ME**  
**14-1-26**



# Picklist Print

December-17-13 9:06:49 AM

Page 1

Work Order ID: 110042  
Parent Item: D3017-041  
Parent Item Name: Seat Back

Start Date: 12/17/13 Required Date: 12/17/13  
Start Qty: 1.00 Required Qty: 1.00

Comments: IPP A01.09.19New issue EC  
IPP RevB: as per revB DD verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M4130NT0.750W.083 4130 RD Tube .750 x.083W		Purchased	No			100	f	38.6700	2.458	3 2.5		14-1-16	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				MAT033		38.67							
				m126545		2							
				m127493		36.67							
M4130NT0.750W.049 4130 RD Tube .750 x.049W		Purchased	No			100	f	216.2952	11.125	12 2.5		14-1-16	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				MAT033		216.2951893							
				123339		2.1217893							
				125252		7.7164							
				125313		85.284							
				m127111		121.173							
D3017-11 Cap		Manufactured	No			100	Each	51.0000	2	2 2.5		14-1-16	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				WA001		51							
				104954		30							
				106668		21							
D3017-7 Lug		Manufactured	No			100	Each	20.0000	3	3 2.5		14-1-16	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				WA001		9							
				100996		9							
				WA002		11							
				105568		11							

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

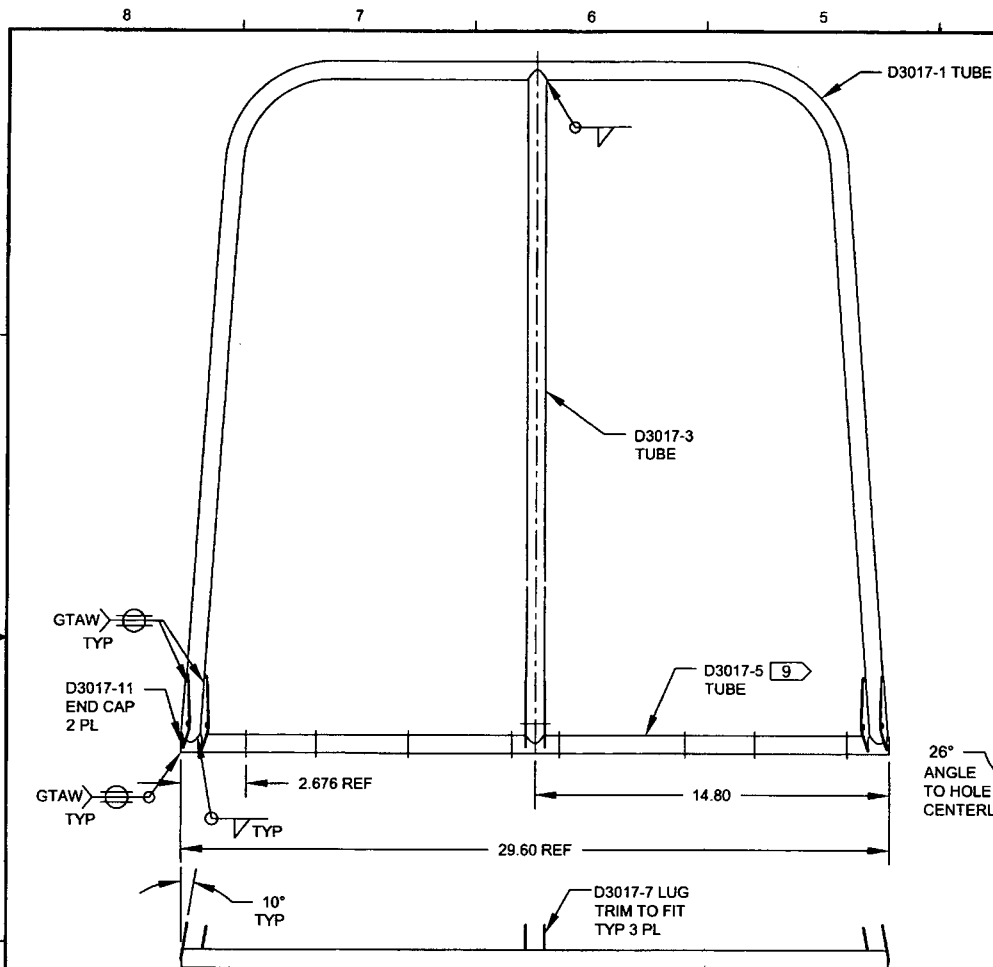
Work Order update only ☐

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Pressure/Forced Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
--	--	---	--



ITEM No.	QTY	PART NUMBER	DESCRIPTION
1	X	D3017-041	BACK FRAME ASSEMBLY
2	1	D3017-1	TUBE
3	1	D3017-3	TUBE
4	1	D3017-5	TUBE
5	3	D3017-7	LUG
6	2	D3017-11	END CAP

118042  
PL13-1217

**RELEASED**  
2010-02-02  
WP

### D3017-041 BACK FRAME ASSEMBLY

#### NOTES:

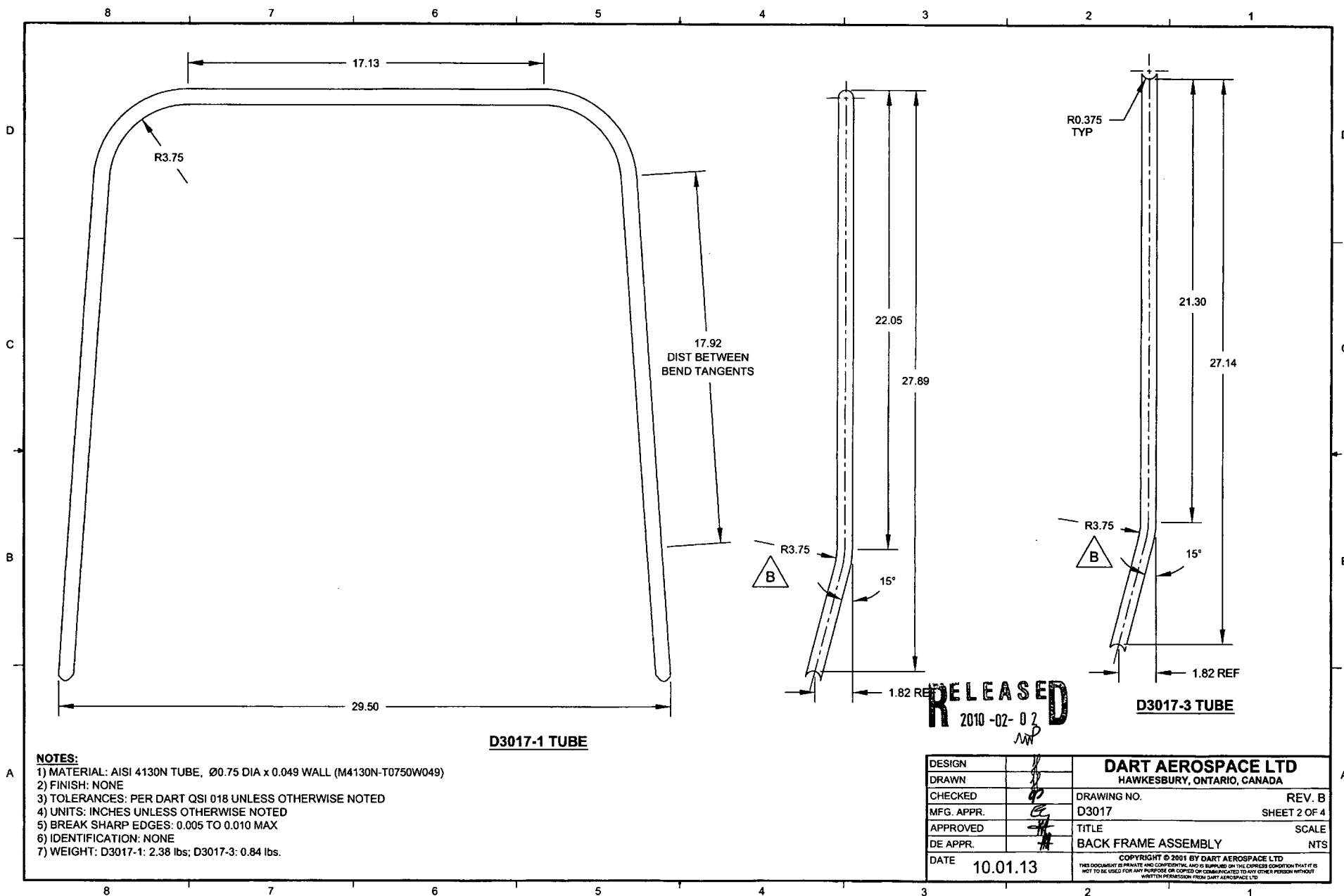
- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT GREY SANDTEX (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3017-041" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 4.50 lbs
- 8) WELD PER DART QSI 004
- 9) ROTATE SO THAT PILOT HOLES ARE ANGLED AS SHOWN IN END VIEW.

B	REFORMAT DWG. -5 TUBE WALL THKNS REVD (A8-3) SHEET 3 & 4 ADDED TO CLARIFY DRAWING. RADIUS CHANGED FROM R4.00 TO R3.75 (B4-2, B2-2). HOLE SIZE CHANGED FROM Ø0.191 TO Ø0.257 (C6-3, C3-3)	JPH	10.01.13
A	NEW ISSUE	CP	01.05.18
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.01.13		

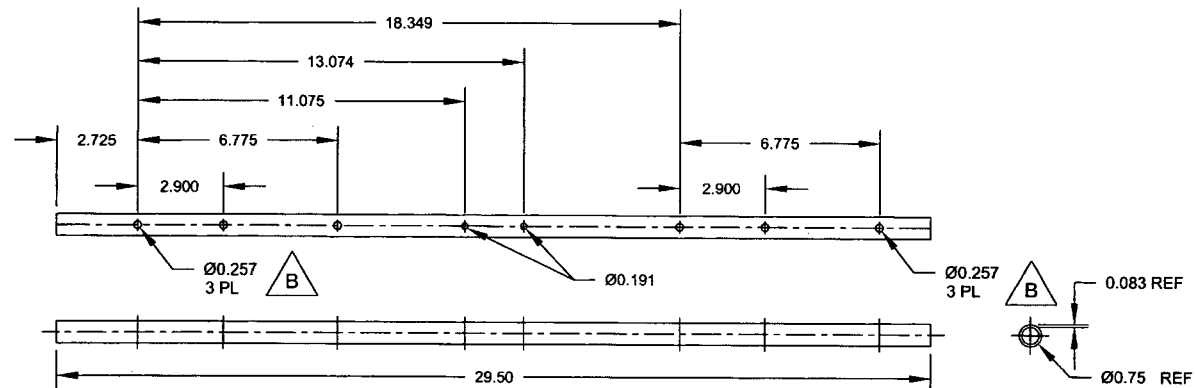
<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA		REV. B
DRAWING NO.	D3017	SHEET 1 OF 4
TITLE	BACK FRAME ASSEMBLY	SCALE
DATE	10.01.13	NTS

COPYRIGHT © 2001 BY DART AEROSPACE LTD  
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.









**D3017-5 TUBE**

**RELEASED**  
2010-02-02  
MP

**NOTES:**

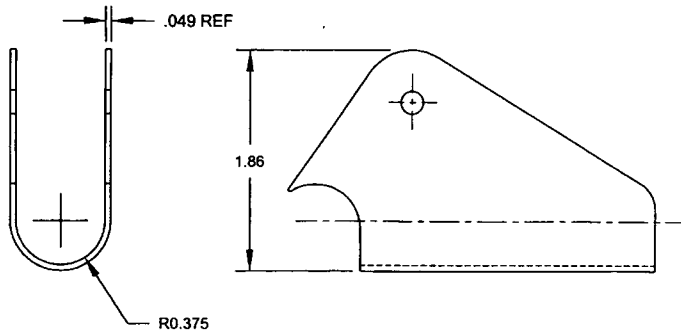
- 1) MATERIAL: AISI 4130N TUBE, Ø0.75 DIA x 0.083 WALL (M4130N-T0750W083)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.89 lbs



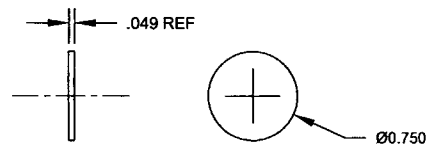
DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3017	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		BACK FRAME ASSEMBLY	NTS
DATE	10.01.13	<small>COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	



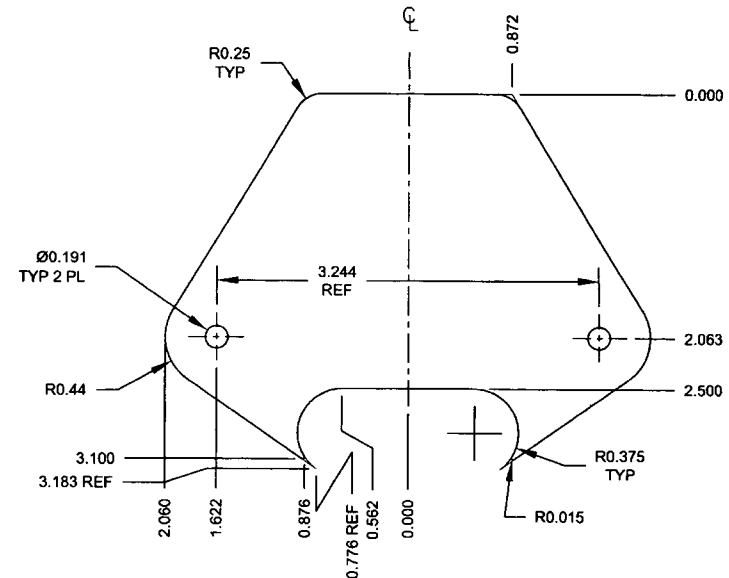
8 7 6 5 4 3 2 1



**D3017-7 LUG**  
BENDING DETAIL  
MAKE FROM D3017-7F



**D3017-11 END CAP**



**D3017-7F FLAT PATTERN**  
PART IS SYMMETRIC  
ABOUT CENTERLINE

**RELEASED**  
2010-02-02

**NOTES:**

- 1) MATERIAL: AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: -7: 0.12 lbs; -11: 0.01 lbs.

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3017	SHEET 4 OF 4
APPROVED		TITLE	SCALE
DE APPR.		BACK FRAME ASSEMBLY	NTS
DATE	10.01.13	<small>COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

8 7 6 5 4 3 2 1

